

What is claimed is:

1. A composition for decreasing cell proliferation, comprising an antibody, drug or agent  
5 which reduces or inhibits peripheral-type benzodiazepine receptors (PBR) function.
2. A composition according to claim 1 wherein said agent is a ribozyme capable of digesting  
10 PBR RNA such that PBR protein is reduced or eliminated.
3. A composition according to claim 1 wherein said agent is an antisense oligonucleotide  
15 complementary to PBR RNA.
4. A composition according to claim 1 wherein said agent is a PBR antagonist.  
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5. A method for inhibiting cell proliferation in a subject comprising administering to a subject a composition according to claim 3, in a pharmaceutically acceptable diluent, in a  
25 pharmaceutically acceptable amount, such that PBR function is inhibited and cell proliferation is reduced.
6. A method according to claim 5 wherein  
30 said cell proliferation is due to a tumor.
7. A method according to claim 6 wherein said tumor is breast cancer.

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12. A diagnostic or prognostic kit comprising antibodies against PBR and ancillary reagents suitable for use in detecting the presence of an aggressive tumor phenotype in a subject according to claim 8.

13. A diagnostic or prognostic kit comprising antibodies against PBR and ancillary reagents suitable for use in detecting the presence of an aggressive tumor phenotype in a subject according to claim 10.

14. A method for diagnosing an aggressive tumor phenotype comprising:

(i) contacting a tumor tissue sample with oligonucleotides which recognize PBR RNA;

(ii) detecting the presence or absence of a duplex formed between PBR RNA in said sample and oligonucleotides specific therefor;

(iii) and comparing it to the amount of duplex formed in a normal tissue sample, wherein an increase in duplex in the suspected tissue over normal indicates the presence of an aggressive tumor phenotype.

15. A diagnostic or prognostic kit comprising oligonucleotides which recognize PBR RNA and ancillary reagents suitable for use in detecting the presence of an aggressive tumor phenotype in a subject according to claim 14.

16. A therapeutic method for the treatment or amelioration of diseases and processes that are mediated by increased cell proliferation comprising the steps of administering to an individual in need of such treatment antibodies, drugs or agents which reduce or eliminate the function of PBR in a pharmaceutically acceptable diluent in a pharmaceutically acceptable amount.

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18. A method according to claim 17, wherein said tumor is breast cancer.

15 ~~20. A composition for reducing cancer~~  
~~growth comprising an inhibitor of PBR selected from~~  
~~the group comprising~~

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22. A therapeutic method for the treatment  
or amelioration of diseases and processes that are  
mediated by reduced cell proliferation according to  
claim 16 wherein said PBR is administered to an

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30. A method for detecting the level of PBR  
in cells using the polymerase chain reaction said  
method comprising:

- (i) extracting RNA from a sample;
- (ii) reverse transcribing said RNA into cDNA
- (ii) contacting said cDNA with
  - (a) at least four nucleotide triphosphates,
  - (b) a primer that hybridizes to PBR cDNA,and
  - (c) an enzyme with polynucleotide synthetic activity,

under conditions suitable for the hybridization and extension of said first primer by said enzyme, whereby a first DNA product is synthesized with said DNA as a template therefor, such that a duplex molecule is formed;

- (iii) denaturing said duplex to release said first DNA product from said DNA;
- (iv) contacting said first DNA product with a reaction mixture comprising:
  - (a) at least four nucleotide triphosphates,
  - (b) a second primer that hybridizes to said first DNA, and
  - (c) an enzyme with polynucleotide synthetic activity,

under conditions suitable for the hybridization and extension of said second primer by said enzyme, whereby a second DNA product is synthesized with said first DNA as a template therefor, such that a duplex molecule is formed;

- (v) denaturing said second DNA product from said first DNA product;

(vii) fractionating said first and second DNA  
5 products generated from said PBR cDNA; and

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wherein said cell is R12.

add B3

add C1

add D1